

REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 22, and 24-43 are presently active in this case. The present Amendment amends Claims 22 and 29-30, and adds new Claim 43 without introducing any new matter.

The December 18, 2009 final Office Action rejected Claims 22-23, 31-33, and 35-37 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 22, and 24-42 were rejected under 35 U.S.C. § 102(b) as anticipated by Bernstein et al. (U.S. Patent No. 4,795,898, hereinafter “Bernstein”).

After filing an Amendment under 37 C.F.R. § 1.116 on April 14, 2010, that amended independent Claim 22 to correct a minor formal issue, an Advisory Action issued on May 13, 2010, upholding the rejections under 35 U.S.C. § 102(b), and not addressing the comments made with respect to the pending 35 U.S.C. § 112, second paragraph rejection.

In response, Applicants’ independent Claim 22 is amended to clarify that the device is a single monolithic device. These features find non-limiting support in Applicants’ disclosure as originally filed, for example in the specification at page 12, lines 5-26. Moreover, Claim 22 is also amended to clarify that the single monolithic device has an upper side and a lower side that is arranged opposite of the upper side, and to correct some formal issues. These features also find non-limiting support in the specification, for example in Figures 3A-3B and 5, and at page 11, lines 21-25. No new matter has been added.

Moreover, dependent Claims 29-30 are amended to clarify certain features. For example, dependent Claim 29 is amended to recite that the “inductance measuring device [is] in connection with the first conductive element for measuring an inductance of the first conductive element.” In addition, dependent Claim 30 is amended to recite that a deletion unit deletes data in the integrated circuit chip “if a change of the inductance is detected by the

inductance measuring device.” These features find non-limiting support in Applicants’ specification at page 16, lines 24-30, and at page 17, lines 1-7, and in Figure 4. No new matter has been added.

In addition, new Claim 43 is added, depending from independent Claim 22, reciting that the integrated circuit chip is “arranged between the upper side and the lower side of the device.” These features find non-limiting support at least in Figures 3A-3B and 5, and therefore, no new matter has been added.

In response to rejection of Applicants’ independent Claim 22 under 35 U.S.C. § 112, second paragraph, as being indefinite, Applicants respectfully traverse the rejection.

The pending Office Action rejects some of the features of Applicants’ independent Claim 22 by explaining “it is unclear as to how the first and second conductive elements are coupled and at the same [time] the second conductive element is not connected.” (Office Action, p. 2, ll. 9-11). Applicants respectfully traverse this reasoning, as next discussed.

In Electrical Engineering, two wires are referred to as inductively coupled when they are configured such that change in current flow through a first wire induces a voltage across the ends of a second wire through *electromagnetic induction*, if there is a mutual inductance between the first and second wire. Electromagnetic induction is produced across the second wire if it is situated in a changing magnetic field, for example the changing magnetic field generated by the first wire. For such electromagnetic induction to pass from one wire to another, *no electric connection* is required between the two wires, because the changing magnetic field can pass through the air or even vacuum. The coupling between two wires can be increased by winding them into a first and second coil and placing them close together on a common axis, so the magnetic field of one coil passes through the other coil, without any electrical connection between the first and second coil.

For example, in a transformer, there are usually two wires that are wound as coils,

electrically separated from each other with insulation resin, but having a mutual inductance between the first and second coil. It is one of the most important features of a transformer to create an electric separation between the first and second wire. For example, Applicants' specification explains that inductive coupling of two wires avoids a need for any direct electrical contact, being one of the features of Applicants' Claim 22. (See specification, p. 8, ll. 1-9.) This is even evidenced by the reference Bernstein cited in the pending Office Action, showing a transformer 120 having a primary and secondary winding 121 and 122. (See Bernstein, Fig. 1, col. 3, ll. 45-50.) There is no electric connection between the primary and secondary winding 121 and 122 of transformer 120 in Bernstein.

Accordingly, in light of the above discussion, Applicants traverse the rejection under 35 U.S.C. § 112, second paragraph, as being indefinite.

In response to the rejection of Claim 22 under 35 U.S.C. § 102(b), in light of the amendments to independent Claim 22, Applicants respectfully request reconsideration of this rejection and traverse the rejection, as discussed next.

Briefly summarizing, Applicants' independent Claim 22 is directed to a single monolithic electronic device having an upper side and a lower side that is arranged opposite of the upper side. The single device includes an integrated circuit chip that is configured to include informative data having security-sensitive content, wherein the upper side of the device includes at least one first conductive element connected to the integrated circuit. Moreover, the lower side of the device includes at least one second conductive element, the first conductive element and the second conductive element being coupled by inductive coupling, the second conductive element not being electrically connected to the integrated circuit chip and the first conductive element.

Turning now to the applied references, Bernstein is directed to a personal memory card 10 and a separate card reader/writer 15, where a primary winding 122 is located on the

card reader/writer 15 that can provide electrical power to a secondary winding located on the personal memory card 10, when the memory card 10 and the card reader/writer 15 are brought into close connection with each other. (Bernstein, Abstract, Fig. 1, col. 3, ll. 3-11, and ll. 42-57.) It is clear from Bernstein's explanations that the memory card 10 and the card reader/writer 15 are separate elements, having their own microprocessor chips 410, 110, and separate analog communication interfaces 300, 400. (Bernstein, Fig. 1.) However, Applicants' independent Claim 22 is directed to a single monolithic electronic device having an upper side and a lower side. These features are not taught by Bernstein, because in Bernstein, there are two different circuits, namely the memory card 10 and the card reader/writer 15.

Moreover, Bernstein fails to teach that the first and second conductive elements are arranged on the upper and lower side, respectively, of the monolithic device, as further required by Applicants' independent Claim 22. As discussed above, in Bernstein there is only one wiring on each of memory card 10 and the card reader/writer 15. Bernstein further explains that his card reader/writer 15 is not a single chip, but a device to which the memory card 10 is inserted. (See Bernstein, col. 6, ll. 22-23, col. 8, ll. 1-3.) In addition, the primary and secondary winding 121, 122 are also on different chips. Accordingly, in light of these deficiencies of Bernstein, Applicants respectfully traverse the rejection of Applicants' independent Claim 22.

Moreover, in light of the amendments to dependent Claims 29-30, Applicants believe that the rejection of dependent Claims 29-30 is moot. Accordingly, Applicants respectfully request reconsideration of the rejection of dependent Claims 29 and 30. For example, Applicants' dependent Claim 29 requires the following features:

an inductance measuring device in connection with the first conductive element for measuring an inductance of the first conductive element, and for detecting a variation of the inductance.

(Claim 29, portions omitted.) There is no such feature taught by Bernstein. The December 18, 2009 Office Action points out to the reference Bernstein at his column 3, lines 25-65, and Figures 1-2 to reject this feature. (Office Action, p. 4, ll. 11-13.) Moreover, the Advisory Action reinforced this position. (Advisory Action, starting at p. 3, l. 25.) Applicants traverse this rejection, because in these passages, it is merely explained that power can be transmitted from card reader/writer 15 to the personal memory card 10, and when the power is removed, data can be invariably stored in an EEPROM 115 of the personal memory card 10. However, there is “an inductance measuring device in connection with the first conductive element for measuring an inductance of the first conductive element, and for detecting a variation of the inductance,” as required by Applicants’ dependent Claim 29. Bernstein merely explains that protection can be achieved by the reset circuit 305 that can detect when the power supply voltage drops below a certain threshold level. (Bernstein, col. 6, ll. 10-21, Fig. 3.) Therefore, Applicants respectfully request reconsideration of the rejections of Applicants’ dependent claims.

In addition, dependent Claim 43 requires that the an integrated circuit chip is arranged between the upper side and the lower side of the device. This is not taught by Bernstein, because his memory card 10 and the card reader/writer 15 are separate elements, with microprocessor chips 410, 110, and separate analog communication interfaces 300, 400, respectively that are not arranged between the upper side and the lower side of the single device, as required by Claim 43.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 22, and 24-43 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the below listed telephone number.

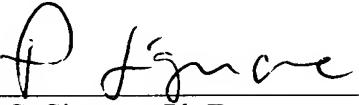
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